

<b>Notice of Allowability</b>	Application No.	Applicant(s)
	10/792,306	ADEGAWA, YUTAKA
	Examiner Yvette C. Thornton	Art Unit 1752

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1.  This communication is responsive to application filed on March 4, 2004.
2.  The allowed claim(s) is/are 1-16.
3.  The drawings filed on 04 March 2004 are accepted by the Examiner.
4.  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a)  All    b)  Some\*    c)  None    of the:
    1.  Certified copies of the priority documents have been received.
    2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3.  Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5.  A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6.  CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a)  including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1)  hereto or 2)  to Paper No./Mail Date \_\_\_\_\_.
  - (b)  including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7.  DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1.  Notice of References Cited (PTO-892)
2.  Notice of Draftperson's Patent Drawing Review (PTO-948)
3.  Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date 03042004
4.  Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5.  Notice of Informal Patent Application (PTO-152)
6.  Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_.
7.  Examiner's Amendment/Comment
8.  Examiner's Statement of Reasons for Allowance
9.  Other \_\_\_\_\_.

**Reasons for Allowance**

This is written in reference to application number 10/792,306 filed on March 4, 2004 and published as US 2004/0180288 A1 on September 16, 2004.

***Priority***

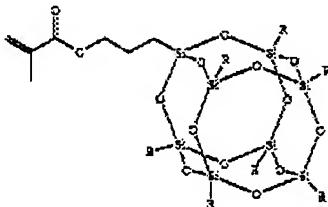
1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

***Information Disclosure Statement***

2. The Information Disclosure Statement filed on March 4, 2004 has been entered and fully considered.

***Allowable Subject Matter***

3. Claims 1-16 are allowed.
4. The following is an examiner's statement of reasons for allowance: review of the prior art failed to teach and/or suggest a positive resist composition comprising (A) a resin having a repeating unit selected from the group consisting of (1) a vinyl ether containing a group represented by formula (A), (2) a vinyl ester containing a group represented by formula (A); and (3) a  $\beta$ -alkylacrylic acid repeating unit containing a group represented by formula (A); and (B) an acid generator.
5. Compositions comprising  $\alpha$ -alkylacrylic acid repeating units containing a group represented by



formula (A) are known such as

. See WO 02/073308 A1, JP 2002-256033

(machine translation), US 6,632,582 B1 and US 6,565,763 B1. However all the said references fail to teach and/or suggest a  $\beta$ -alkyl substitution as required by the instant claims. One of ordinary skill in the

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art would not have been motivated nor would it have been obvious to replace the taught hydrogen atoms in the beta position for an alkyl groups.

6. Further, Malik et al. (US 6,830,870 B2) teaches a repeating unit of formula (I) which can be prepared by reacting a polymer containing a hydroxystyrene unit with a t-butyl vinyl ether and an alcohol of formula VII (c. 4, l. 31-c. 5, l. 14). Formula VII meets the limitations of claimed formula (A). However, formula (I) fails to meet the limitations of (1) a vinyl ether, (2) a vinyl ester or (3) a  $\beta$ -alkylacrylic acid as set forth in the instant claims. One of ordinary skill in the art would not have been motivated nor would it have been obvious to modify the taught backbone of Malik to meet the limitations of the instant claims.

7. The claimed invention is therefore deemed allowable over the cited prior art.

8. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

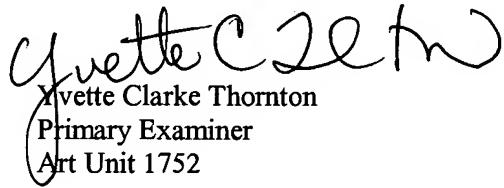
### *Conclusion*

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yvette C. Thornton whose telephone number is 571-272-1336. The examiner can normally be reached on Monday-Thursday 8-6:30.

10. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia H. Kelly can be reached on 571-272-1526. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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11. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Yvette Clarke Thornton  
Primary Examiner  
Art Unit 1752

yct  
May 31, 2005